Ex. 5 - Deliberative

Dear Ex. 6 - Personal Privacy

My colleague, Jennifer Crooks, with the U.S. EPA-Region 5 office, forwarded your message to me for response. From my understanding, the City of Flint exceeded the TTHM standard and as such, was required to provide their customers with violation/public notification (PN) of the exceedance. You wanted to know why U.S. EPA's PN requirements do not include warnings for inhalation and dermal exposure.

As background, PNs are intended to ensure that consumers will always know if there is a problem with their drinking water, especially if it poses a risk to public health. Among other things, it includes information regarding drinking water standard exceedances. The required PN health language (outlined by U.S. EPA with input from various consumer focus groups) is meant to convey, in non-technical terms, the potential adverse heath effect outcome that may occur as a result of the exceedance. Therefore, in the case of the TTHM violation, the outcome of consuming water above 80 milligrams per liter for many years could result in liver, kidney, or central nervous system problems and increased risk of cancer. Also, while States and water utilities are free to add additional information to each notice, our mandatory language does not include precautionary customer action (such as, "boil water" or "here are steps to reduce your risk..."). Since local situations vary, we give flexibility to state and local officials on whether to include that type of site-specific language.

On a related note: if data are available, we do consider other routes of exposure (such as inhalation, dermal, etc.) when developing standards, and that evaluation is reflected in the final numeric number. Did the Agency consider inhalation or dermal exposure contributions when the TTHM standard was developed? After reviewing our records from the 1994 proposed rule and 1998 Stage 1 final disinfectants/disinfection byproducts (d/dbp) rule, I believe we did not consider those routes because studies were not likely available. However, we are currently in the process of reviewing the d/dbp rules under our 6-Year Review regulatory process; and therefore, will be considering all new toxicological data regarding inhalation and dermal exposure risks.

Thank you for your interest in this matter. If you have additional questions, please contact me at harris.kimberly@epa.gov or (312) 886-4239.

Sincerely,
Kim Harris

From: Bair, Rita
Sent: Tuesday, July 14, 2015 4:22 PM
To: r [redacted] **Ex. 6 - Personal Privacy**
Cc: Porter, Andrea; Crooks, Jennifer; Harris, Kimberly; Deltoral, Miguel
Subject: RE: Flint Water Question from a Pregnant Flint Resident

We are responding to your email of July 11, 2015 to Miguel Del Toral. He is out of the office today, but has provided the following information to your lead questions. Overall, he agrees with Marc's responses on the water filter. Filters that are certified to remove lead are typically designed to remove 99 percent of the lead. They are also designed with additional capacity as a safety measure, but you should still change the filter in accordance with the manufacturer's instructions. If you identify elevated lead levels from other taps that do not have water filters, we suggest either adding a filter to those, such as the bathroom tap, or only using the filtered tap water for consumption.

If you are still interested in having your water tested you should use a laboratory that has been certified by the State for drinking water analyses (a list is available from the following link: http://www.michigan.gov/deq/0,4561,7-135-3307_4131_4156-36940--,00.html. Please note that a first-draw sample, regardless of pre-flushing, is best for identifying lead that comes from the faucet and other in-home piping or fittings close to the faucet. First-draw sampling does not give a good indication of the lead contribution from sources further from the faucet (i.e. lead service line, leaded brass meter, etc.). Information for residents about first-draw sampling instructions can be found on the last page of the 2006 memo on aerators and LCR sampling at the following link: http://www.epa.gov/ogwdw/lcrmr/pdfs/memo_tapsamples-aerators_10202006.pdf. In addition, below are two graphics from our Region 5 website with information about how to identify if you have a lead service line coming into your home and for faucets that do not have filters on them, how to clean the aerators.

Regarding your TTHM question, EPA has considered developmental and reproductive risks from multiple intake routes of exposure (e.g., ingestion, inhalation, and dermal) in our 2006 Disinfectants and Disinfection Byproducts (DBPR) rule. Some studies did suggest associations between TTHM exposure and various adverse reproductive and development health effects. However, studies available overall showed inconsistent results. As such, our Agency could not conclude whether exposure to TTHMs could cause adverse reproductive/developmental health effects. However, we did note in our findings that there was the potential for concern.

Currently, we are in the process of re-evaluating our DBPR rules and considering new toxicological data regarding reproductive and developmental health effects. Until our evaluation is complete, pregnant women can elect to take additional precautionary measures such as taking shorter showers, venting the room while showering/bathing, and not ingesting water with high TTHM concentrations.

We hope this information is helpful to you.

Rita D. Bair

Section 2 Chief

Ground Water and Drinking Water Branch

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